This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Original) A method for synchronizing encryption and decryption of a data frame in a communication network, the method comprising:

encrypting a first data frame based on a first unique code in a first communication device, said first unique code being derived from a first sequential code;

encapsulating said first encrypted data frame in a first transport frame, said first transport frame comprising a first portion and a second portion of said first sequential code;

encrypting a second data frame based on a second unique code in the first communication device, said second unique code being derived from a second sequential code;

encapsulating said second encrypted data frame in a second transport frame, said second transport frame comprising a first portion and a second portion of said second sequential code; and

transmitting said first transport frame and said second transport frame to a second communication device,

wherein said first portion of said first sequential code and said first portion of said second sequential code identify the same relative portions of said first and second sequential codes, and said second portion of said second sequential code represents a successive relative portion with respect to said second portion of said first sequential code.

2.   (Original) The method of claim 1, wherein:

said first portion of said first sequential code and said first portion of said second sequential code each represent a short-term component of said first and second sequential codes, respectively; and

said second portion of said first sequential code and said second portion of said second sequential code each represent a long-term component of said first and second sequential codes, respectively.

3.   (Original) The method of claim 1, wherein said transport frame comprises a radio link protocol (RLP) frame.

4.   (Original) A computer-readable medium embodying computer codes for implementing a method for synchronizing encryption and decryption of a data frame in a communication network, the method comprising:

encrypting a first data frame based on a first unique code in a first communication device, said first unique code being derived from a first sequential code;

encapsulating said first encrypted data frame in a first transport frame, said first transport frame comprising a first portion and a second portion of said first sequential code;

encrypting a second data frame based on a second unique code in the first communication device, said second unique code being derived from a second sequential code;

encapsulating said second encrypted data frame in a second transport frame, said second transport frame comprising a first portion and a second portion of said second sequential code; and

transmitting said first transport frame and said second transport frame to a second communication device,

wherein said first portion of said first sequential code and said first portion of said second sequential code identify the same relative portions of said first and second sequential codes, and said second portion of said second sequential code represents a successive relative portion with respect to said second portion of said first sequential code.

5.   (Original) The medium of claim 4, wherein:

said first portion of said first sequential code and said first portion of said second sequential code each represent a short-term component of said first and second sequential codes, respectively; and

said second portion of said first sequential code and said second portion of said second sequential code each represent a long-term component of said first and second sequential codes, respectively.

6.   (Original) The medium of claim 4, wherein said transport frame comprises a radio link protocol (RLP) frame.

7.   (Original) An apparatus for synchronizing encryption and decryption of a data frame in a communication network, comprising:

means for encrypting a first data frame based on a first unique code in a first communication device, said first unique code being derived from a first sequential code;

means for encapsulating said first encrypted data frame in a first transport frame, said first transport frame comprising a first portion and a second portion of said first sequential code;

means for encrypting a second data frame based on a second unique code in the first communication device, said second unique code being derived from a second sequential code;

means for encapsulating said second encrypted data frame in a second transport frame, said second transport frame comprising a first portion and a second portion of said second sequential code; and

means for transmitting said first transport frame and said second transport frame to a second communication device,

wherein said first portion of said first sequential code and said first portion of said second sequential code identify the same relative portions of said first and second sequential codes, and said second portion of said second sequential code represents a successive relative portion with respect to said second portion of said first sequential code.

8.   (Original) The apparatus of claim 7, wherein:

said first portion of said first sequential code and said first portion of said second sequential code each represent a short-term component of said first and second sequential codes, respectively; and

said second portion of said first sequential code and said second portion of said second sequential code each represent a long-term component of said first and second sequential codes, respectively.

9.   (Original) The apparatus of claim 7, wherein said transport frame comprises a radio link protocol (RLP) frame.

10.   (Original) An apparatus, comprising:

a receiver;

a transmitter; and

a processor communicatively coupled to the receiver and the transmitter, the processor being capable of implementing a method for synchronizing encryption and decryption of a data frame in a communication network ; the method comprising:

encrypting a first data frame based on a first unique code in a first communication device, said first unique code being derived from a first sequential code;

encapsulating said first encrypted data frame in a first transport frame, said first transport frame comprising a first portion and a second portion of said first sequential code;

encrypting a second data frame based on a second unique code in the first communication device, said second unique code being derived from a second sequential code;

encapsulating said second encrypted data frame in a second transport frame, said second transport frame comprising a first portion and a second portion of said second sequential code; and

transmitting said first transport frame and said second transport frame to a second communication device,

wherein said first portion of said first sequential code and said first portion of said second sequential code identify the same relative portions of said first and second sequential codes, and said second portion of said second sequential code represents a successive relative portion with respect to said second portion of said first sequential code.

.11.   (Original) The apparatus of claim 10, wherein:

said first portion of said first sequential code and said first portion of said second sequential code each represent a short-term component of said first and second sequential codes, respectively; and

said second portion of said first sequential code and said second portion of said second sequential code each represent a long-term component of said first and second sequential codes, respectively.

12.   (Original) The apparatus of claim 10, wherein said transport frame comprises a radio link protocol (RLP) frame.

13.   (Original) A method for synchronizing encryption and decryption of a data frame in a communication network, the method comprising:

receiving a first transport frame, said first transport frame comprising a first encrypted data payload, a first portion of a first sequential code, and a second portion of said first sequential code;

receiving a second transport frame, said second transport frame comprising a second encrypted data payload, a first portion of a second sequential code, and a second portion of said second sequential code; and

determining said second sequential code using said first portion of said second sequential code, said second portion of said second sequential code, and said second portion of said first sequential code,

wherein said first portion of said first sequential code and said first portion of said second sequential code identify the same relative portions of said first and second sequential codes, and

said second portion of said second sequential code represents a successive relative portion with respect to said second portion of said first sequential code.

14.   (Original) The method of claim 13, further comprising:

decrypting said second encrypted data payload using said second sequential code.

15.   (Original) The method of claim 13, further comprising:

determining said first sequential code using said first portion of said first sequential code, said second portion of said first sequential code, and said second portion of said second sequential code.

16.   (Original) The method of claim 15, further comprising:

decrypting said first encrypted data payload using said first sequential code.

17.   (Original)   A computer-readable medium embodying computer codes for implementing a method for synchronizing encryption and decryption of a data frame in a communication network, the method comprising:

receiving a first transport frame, said first transport frame comprising a first encrypted data payload, a first portion of a first sequential code, and a second portion of said first sequential code;

receiving a second transport frame, said second transport frame comprising a second encrypted data payload, a first portion of a second sequential code, and a second portion of said second sequential code; and

determining said second sequential code using said first portion of said second sequential code, said second portion of said second sequential code, and said second portion of said first sequential code,

wherein said first portion of said first sequential code and said first portion of said second sequential code identify the same relative portions of said first and second sequential codes, and said second portion of said second sequential code represents a successive relative portion with respect to said second portion of said first sequential code.

18.   (Original) The medium of claim 17, the method further comprising:

decrypting said second encrypted data payload using said second sequential code.

19.   (Original) The medium of claim 17, the method further comprising:

determining said first sequential code using said first portion of said first sequential code, said second portion of said first sequential code, and said second portion of said second sequential code.

20.   (Original) The medium of claim 19, the method further comprising:

decrypting said first encrypted data payload using said first sequential code.

21.   (Original) An apparatus for synchronizing encryption and decryption of a data frame in a communication network, comprising:

means for receiving a first transport frame, said first transport frame comprising a first encrypted data payload, a first portion of a first sequential code, and a second portion of said first sequential code;

means for receiving a second transport frame, said second transport frame comprising a second encrypted data payload, a first portion of a second sequential code, and a second portion of said second sequential code; and

means for determining said second sequential code using said first portion of said second sequential code, said second portion of said second sequential code, and said second portion of said first sequential code,

means for wherein said first portion of said first sequential code and said first portion of said second sequential code identify the same relative portions of said first and second sequential codes, and said second portion of said second sequential code represents a successive relative portion with respect to said second portion of said first sequential code.

22.   (Original) The apparatus of claim 21, further comprising:

means for decrypting said second encrypted data payload using said second sequential code.

23.   (Original) The apparatus of claim 21, further comprising:

means for determining said first sequential code using said first portion of said first sequential code, said second portion of said first sequential code, and said second portion of said second sequential code.

24.   (Original) The apparatus of claim 23, further comprising:

means for decrypting said first encrypted data payload using said first sequential code.

25. (Original) An apparatus, comprising:

a receiver;

a transmitter; and

a processor communicatively coupled to the receiver and the transmitter, the processor being capable of implementing a method for synchronizing encryption and decryption of a data frame in a communication network, the method comprising:

receiving a first transport frame, said first transport frame comprising a first encrypted data payload, a first portion of a first sequential code, and a second portion of said first sequential code;

receiving a second transport frame, said second transport frame comprising a second encrypted data payload, a first portion of a second sequential code, and a second portion of said second sequential code; and

determining said second sequential code using said first portion of said second sequential code, said second portion of said second sequential code, and said second portion of said first sequential code,

wherein said first portion of said first sequential code and said first portion of said second sequential code identify the same relative portions of said first and second sequential codes, and said second portion of said second sequential code represents a successive relative portion with respect to said second portion of said first sequential code.

26. (Original) The apparatus of claim 25, the method further comprising:

decrypting said second encrypted data payload using said second sequential code.

27. (Original) The apparatus of claim 25, the method further comprising:

determining said first sequential code using said first portion of said first sequential code, said second portion of said first sequential code, and said second portion of said second sequential code.

28.   (Original) The apparatus of claim 27, the method further comprising:

decrypting said first encrypted data payload using said first sequential code.

29.   (Cancelled)

30.   (Cancelled)

31.   (Cancelled)

32.   (Cancelled)

33.   (Previously Presented) The method of claim 1, wherein the encrypting and encapsulating steps are performed at a transport layer of an Internet Protocol (IP) standard.

34.   (Previously Presented) The method of claim 1, wherein the encrypting of the first and second data frames is not based on a level of encryption associated with a higher-layer data object that includes data present within one of the first and second data frames.